For all 8-BIT Atari computers
(DISK) REQUIRES 32K and Atari Basic Cartridge for 400/800

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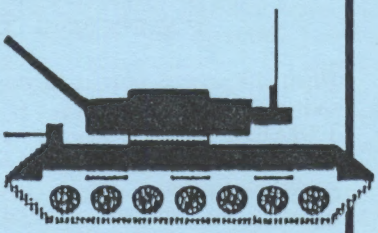
TANK MATH™

by
ED SABO JR

A TUTORED MATH EXERCISE

PLUS A BONUS ROMAN NUMERAL QUIZ

EDUCATIONAL
SOFTWARE
BY
ULTRA BASIC™



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32K (DISK)
PRICE $10.00

INTRODUCTION

TANK MATH is a tutored mathematical exercise designed for children preschool age through grade six. However, older students and adults may find TANK MATH enjoyable and a good memory refresher. With TANK MATH, you can practice mathematical problems in ADDITION, SUBTRACTION, MULTIPLICATION, DIVISION, MULTIPLICATION TABLES, and DIVISION TABLES. You can even learn how to do mathematical problems by watching the tutor work them out step by step. TANK MATH includes a ROMAN NUMERAL QUIZ, an enjoyable method to aid in the development of your ROMAN NUMERAL skills.

LOADING INSTRUCTIONS

You must have at least 32K of memory. Turn off your computer and all peripherals. If you have an Atari 400/800, insert the Atari Basic Cartridge into the proper cartridge slot. Turn on disk drive #1 and wait for the busy light to go out. Insert the TANK MATH disk with the label up. When you turn on your computer, the program will load. Loading is completed when the program prompts you to type in your name.

TYPING IN YOUR NAME

When the program prompts you to type in your name, type in your name using 18 letters or less. If you make a mistake, you can press the | DELETE BK SP | key to make corrections. After you type in your name, press the | RETURN | key. If you do not desire to type in your name, just press the | RETURN | key. Next, a short demo will appear showing that you are entitled to five wrong answers. When the demo is completed, the MENU will appear.

MENU INSTRUCTIONS

MATH MODE

Press | OPTION | to choose the math mode desired; ADD, SUBTRACT, MULTIPLY, DIVIDE, MIXED, or ROMAN NUMERAL QUIZ. When the MIXED mode is selected, TANK MATH randomly selects from the ADD, SUBTRACT, MULTIPLY, and DIVIDE modes for each problem. Your selection appears on the top of the screen in INVERSE VIDEO.

To practice MULTIPLICATION or DIVISION TABLES, you must choose the MULTIPLICATION or DIVISION mode (LEVEL), then press the | SHIFT | key. The word "LEVEL" or "TABLES" is displayed above the numbered targets to indicate which mode you are in. To return to the MULTIPLICATION or DIVISION mode (LEVEL), press the | SHIFT | key again.

LEVEL OF PLAY

Press | SELECT | to change the LEVEL of play. The problems are more difficult in the higher LEVELS. If you selected the MULTIPLICATION or DIVISION TABLES mode, pressing | SELECT | will select which TABLES you will practice. The LEVEL/TABLES number (1 thru 12) appears above the numbered targets.

DIRECTION OF ANSWER

Below the LEVEL/TABLES number, an arrow indicates the direction you must type your answer. In the MULTIPLICATION TABLES mode, the arrow will flash. In this mode, you can select the direction you type your answer. To select the direction desired, press the | < | key to type the answer from right to left or press the | > | key to type the answer from left to right.

TIMER

By pressing the number keys | 1-9 |, you can select the amount of time you will have to solve a problem. Time equals 5 seconds times the number pressed. Press the | 0 | key for NO TIMER.

STARTING

If you desire to start over, hold down the | CTRL | key then press the | S | key. The program will prompt you to type in your name.

When you have made all your selections, press | START | to begin.

PRACTICING WITH TANK MATH

TYPING IN YOUR ANSWER

When the problem appears on the screen, a flashing question mark shows the starting point for your answer. Each number you type will appear in place of the flashing question mark. If you make a mistake, press the | DELETE BK SP | key to make corrections. After you have typed your answer, press the | RETURN | key. In DIVISION levels 7-12, most answers contain remainders. First type the quotient, if an answer contains a remainder, press the | R | key. When the red "R" appears next to the quotient, type the remainder.

CORRECT ANSWER

If you answer the problem correctly, the tank tutor will blast the problem off the screen. If you still desire to watch the tutor work out the problem, press the | ESC | key before the explosion ends. This function is not in the ROMAN NUMERAL QUIZ. After each problem the numbers in the lower right hand corner of the screen update, showing you the amount of correct answers out of the total amount of problems attempted.

INCORRECT ANSWER

If you answer the problem incorrectly or run out of time when using the timer, the tank tutor will shoot off one of the numbered targets, showing the amount of wrong answers remaining. After this, the tutor will work out the problem step by step and display the correct answer. When the tutor is finished with the problem, you can press the | ESC | key to have the tutor repeat the problem at a slower speed or press the | SPACE BAR | to continue to the next problem. If you press the | SPACE BAR | after five incorrect answers, the exercise ends.

MISCELLANEOUS

If you desire to watch the tutor work out a problem for you without trying to answer it, press the | ESC | key. The problem won't count as one of the five wrong answers your allowed, but will count in the total amount of problems attempted.

TANK MATH automatically returns to the MENU after every twelve consecutive problems. If you desire to return to the MENU while there is a problem displayed on the screen, press | SELECT |.

In the MULTIPLICATION TABLES mode, TANK MATH displays a problem with the TABLES number (multiplier) times a number from 1 to 12 (multiplicand). In the DIVISION TABLES mode, TANK MATH displays a problem with a multiple of the TABLES number (dividend) divided by the TABLES number (divisor). Twelve consecutive problems use all of the numbers 1 thru 12 without repeats.

The largest number to be worked with in each level is listed below.

LEVEL:	1	2	3	4	5	6	7	8	9	10	11	12
ADD												
top addend	5	9	9	15	20	49	49	99	199	499	999	999
bottom addend	5	5	9	9	15	15	49	99	99	199	499	999
SUBTRACT												
minuend	5	9	9	15	20	49	49	99	199	499	999	999
subtrahend	5	5	9	9	15	15	49	99	99	199	499	999
MULTIPLY												
multiplicand	6	6	9	9	12	12	15	49	99	99	149	199
multiplier	3	6	6	9	9	12	15	15	15	25	25	50
DIVIDE												
dividend	18	36	54	81	108	144	225	735	1485	2475	3725	9950
divisor	3	6	6	9	9	12	15	15	15	25	25	50

In DIVISION levels 7-12, most answers contain remainders.

ROMAN NUMERALS	39	59	89	139	399	599	899	1399	1599	1899	2899	3999

TABLE OF ROMAN NUMERALS

1	I	100	C	10,000	$\overline{X}$
2	II	200	CC	20,000	$\overline{X}\overline{X}$
3	III	300	CCC	30,000	$\overline{X}\overline{X}\overline{X}$
4	IV	400	CD	40,000	$\overline{X}\overline{L}$
5	V	500	D	50,000	$\overline{L}$
6	VI	600	DC	60,000	$\overline{L}\overline{X}$
7	VII	700	DCC	70,000	$\overline{L}\overline{X}\overline{X}$
8	VIII	800	DCCC	80,000	$\overline{L}\overline{X}\overline{X}\overline{X}$
9	IX	900	CM	90,000	$\overline{X}\overline{C}$
10	X	1,000	M	100,000	$\overline{C}$
20	XX	2,000	MM	200,000	$\overline{C}\overline{C}$
30	XXX	3,000	MMM	300,000	$\overline{C}\overline{C}\overline{C}$
40	XL	4,000	M$\overline{V}$	400,000	$\overline{C}\overline{D}$
50	L	5,000	$\overline{V}$	500,000	$\overline{D}$
60	LX	6,000	$\overline{V}$M	600,000	$\overline{D}\overline{C}$
70	LXX	7,000	$\overline{V}$MM	700,000	$\overline{D}\overline{C}\overline{C}$
80	LXXX	8,000	$\overline{V}$MMM	800,000	$\overline{D}\overline{C}\overline{C}\overline{C}$
90	XC	9,000	M$\overline{X}$	900,000	$\overline{C}\overline{M}$
				1,000,000	$\overline{M}$

The ROMAN NUMERAL QUIZ uses numbers from 1 to 3,999. In the TABLE we include ROMAN NUMERALS up to 1,000,000 for additional information. Once you learn the ROMAN NUMERALS from 1 to 3,999, you should not have trouble with larger numbers. A line above a ROMAN NUMERAL (V-M) indicates 1,000 times its value.

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TANK MATH™

ADDITION
SUBTRACTION
MULTIPLICATION
DIVISION
MIXED MODE

MULTIPLICATION TABLES
DIVISION TABLES

PLUS A BONUS ROMAN NUMERAL QUIZ

CHOOSE FROM 12 DIFFICULTY LEVELS OR 12 TABLES

ALSO INCLUDES:

AN OPTIONAL TIMER AND A TUTOR WHICH IN ADDITION TO SHOWING YOU THE CORRECT ANSWER, SHOWS YOU THE SOLUTION WORKED OUT STEP BY STEP.

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